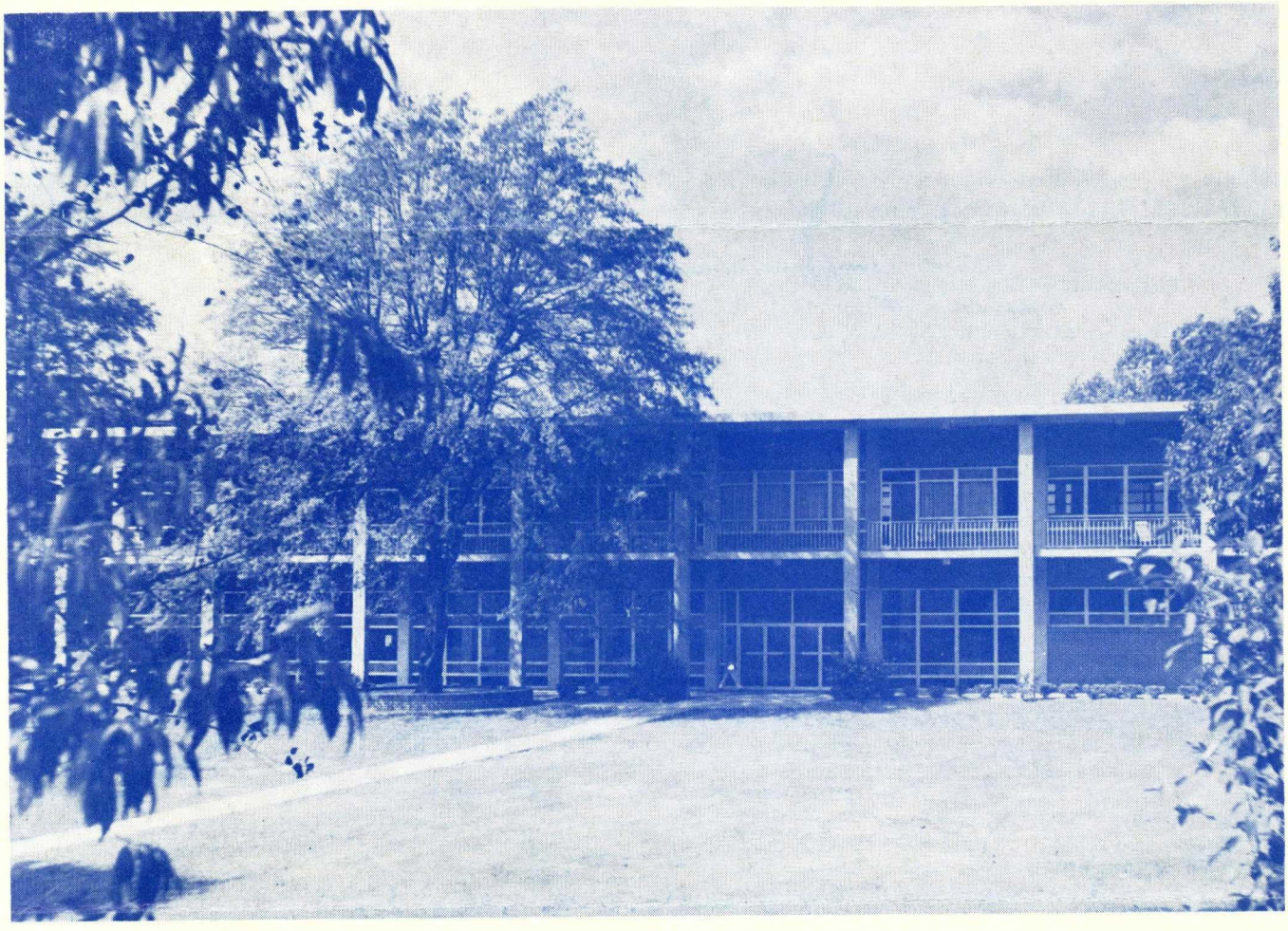
MILLSAPS COLLEGE BULLETIN

Summer Session 1961



AIR-CONDITIONED LIBRARY

AIR-CONDITIONED CLASSROOMS

AIR-CONDITIONED CAFETERIA

FIRST TERM
June 3—July 8

SECOND TERM
July 10—August 11

JACKSON, MISSISSIPPI

MILLSAPS COLLEGE SUMMER SESSION

CALENDAR

First Term

June 3 ---------- Registration
June 5 ---------- Classes Begin
July 4 ---------- Holiday
July 8 ---------- Final Examinations

Second Term

July 10 -Registration of new students and classes begin.
August 11 ---------- Final Examinations

Admission—On Registration

High school groduates attending college for the first time should supply a transcript.

Students previously attending college but entering Millsaps for the first time and planning to spend the summer only should provide a statement of eligibility from the dean or registrar of the school last attended.

Students who wish to have credit for work earned in Millsaps College Summer School transferred to another college must file a written request for a transcript in our Registrar's Office before the transfer of credit will be made.

Schedule Changes

All courses listed will be taught, but the College reserves the right to withdraw a course if there is insufficient registration (less than 5) or to change instructors if necessary.

Students are expected to be present for each class session. Instructors may exclude students from a class and withhold credit if unexcused absences in that class exceed three.

Tuition

Five semester hours or less, each hour ---------- $15.00
Six or seven semester hours ---------- $90.00

LABORATORY FEES

Biology (except 52, 101) ---------- $10.00
Chemistry (except 82) ---------- $10.00
Economics 31-32 ---------- $ 6.00
Economics 31A-32A, 71 ---------- $ 3.00
Geology (except 52) ---------- $10.00
Modern Languages ---------- $ 5.00
Physical Education 21-22, 31-32 ---------- $ 2.00
Physics (except 31-32) ---------- $10.00

DORMITORY FEES

Room, each term ---------- $20.00
*Board, each term (3 meals per day, Board plan) $45.00

SUMMARY OF EXPENSES

Day Students	1 5-Week Term	2 5-Week Terms
Total for Day Students, Tuition	$ 90.00	$180.00
Dormitory Students additional Room	$ 20.00	$ 40.00
Board	45.00	90.00
Total for Dormitory Students	$155.00	$310.00

* Students wishing to pay cash for each meal instead of using the board plan may do so.

No scholarship or reduction in tuition or fees made for the summer session. Payment of tuition and fees should be made before the initial meeting of each class.

AIR-CONDITIONED SPACE

The Millsaps-Wilson Library is air-conditioned. It provides an environment conducive to study. The new cafeteria, the bookstore, and many classrooms are also air-conditioned.

SCHEDULE OF CLASSES

Course	Term and Sem. Hrs. 1st-hrs.		Term and Sem. Hrs. 2nd-hrs.		Description	Room	Instructor
7:30-9:00							
Biology	42	4	(ten weeks)		Comparative Anatomy	SH-23	Bell
Economics	21	3	22	3	Economic Principles and Problems	Union A	Walls-Wallace
Economics	41	3	91	3	Personal Finance — Principles of Insurance	M-302	Wallace-Walls
*English	11 (1)	3	12 (1)	3	Composition and Rhetoric	M-304	Whitehead
English	21 (1)	3	22 (1)	3	Survey of English Literature	M-301	Morehead
English	92	3			Short Story Analysis	M-113	Goodman
French	11	3	12	3	Intermediate French	M-303	Craig
*Geology	11	3	12	3	Physical Geology — Historical Geology	SH-016	Priddy-Johnson
*History	21	3	22	3	U. S. History before 1860 — after 1860	Lib. Forum	R. H. Moore
History			83	3	Russia in Modern Times	Lib. 201	Laney
Latin	11	3	12	3	Intermediate Latin	Lib. 302	Coullet
*Mathematics	11	3	12	3	College Algebra — Trigonometry	M-305	Wimbish
Philosophy	11	3	12	3	Introduction to Philosophy — Ethics	Lib. 201	Bergmark
*Physical Education Men and Women — To be arranged						Gym	Montgomery-Smith
*Physical Educ.	21	1	22	1	Golf	Gym	Montgomery-Smith
Physical Ed.	101	3	101	3	Hygiene	Union Rec.	Edge
Psychology	11	3	41	3	General Psychology — Social Psychology	SH-010	Levanway
*Religion	11 (1)	3	12 (1)	3	Old Testament — New Testament	CC-21	Lewis-Anding
*Sociology	11	3	61	3	Introductory Soc. — Social Anthropology	Stu. Activ.	Staff
*Spanish	A1	3	A2	3	Elementary Spanish	M-22	Bufkin
9:05-10:35							
*Chemistry	21	4	22	4	General Inorganic	SH-011	Cain
Chemistry	31	4	32	4	Organic Chemistry	SH-17	Price
*Economics	11	3	12	3	Introduction to Business — Econ. Geog.	SH-016	Walls-Johnson
*Economics	31	3	32	3	Introduction to Accounting	M-304	Wallace
Economics			71	3	Statistics	M-113	Walls
Education	31	3	32	3	High School Methods — Principles of Secondary Edu.	Lib. Forum	R. E. Moore
Education	52	3	161	3	Principles of Teaching in the Elem. Schools — Arith. for Elem. Grades	M-302	Meaders
*English	11 (2)	3	12 (2)	3	Composition and Rhetoric	M-305	Morehead
English	81	3	82	3	American Literature	Lib. 302	Goodman
English	151	3			Milton	M-304	Boyd
*French	A1	3	A2	3	Elementary French	M-22	Staff
German	11	3	12	3	Intermediate German	CC-21	Guest
History	51	3	52	3	Problems in Modern History	Lib. 201	R. H. Moore
*Latin	A1	3	A2	3	Elementary Latin	M-301	Coullet
Mathematics	21	3	22	3	Plane Analytic Geom. — Solid Analytic Geom.	M-303	Ritchie
Mathematics	31	3	32	3	Differential Calculus — Integral Calculus	SH-01	Wimbish
*Physical Education Men and Women — To be arranged						Gym	Montgomery-Smith
*Physical Educ.	31	1	32	1	Tennis	Gym	Edge
*Physics	11	3	12	3	General Physics	SH-11	Galloway
*Physics	11A	4	12A	4	General Physics	SH-11	Galloway
*Physics	21	1	22	1	(Laboratory to be arranged)	SH-11	Galloway
Political Sci.	132	3	72	3	American Political Institutions — American Political Parties	Union A	Bowen-Tapp
*Religion	11 (2)	3	12 (2)	3	Old Testament — New Testament	Stu. Activ.	Wroten
*Speech	11	3	12	3	Public Speaking — Oral Interpretation	Union Rec.	Collins
10:40-12:10							
*Biology	9	3	10	3	Fundamentals of Biology	SH-24	Bell
*Biology	21A	4	22A	4	General Zoology (Invert.-Vert.)	SH-23	Ward
Chemistry	71	4	61A	4	Quantitative Analysis — Pre-Med. Physical	SH-17	Price-Cain
*Economics	31		32		Accounting Lab. (Tues.-Thurs.)	M-304	Wallace
*Economics	31A	1	32A	1	Accounting Lab. (Mon.-Fri.)	M-304	Wallace
Economics			71		Statistics Lab. (Wed.-Sat.)	M-304	Walls
Education	171	3	111	3	Literature for Children — Spec. Problems	M-302	Meaders
Education	181	3			Teaching Music in the Elem. Grades	Mus. Hall	Mrs. Byler
Mathematics	41	3	81	3	Calculus III — Diff. Equations	M-303	Ritchie
English	21 (2)	3	22 (2)	3	Survey of English Literature	Union-Rec.	Whitehead
English	121	3	161	3	Modern Poetry — Advanced Grammar	Lib. 302	Boyd-Goodman
*German	A1	3	A2	3	Elementary German	M-22	Guest
*History	11	3	12	3	European Civilization, 1300-1815 — Since 1815	M-301	Laney
**Music (See below)							
*Physical Education Men and Women — To Be arranged						Gym	Montgomery-Smith
Philosophy	41	3	22	3	Philosophy of Religion — Logic	Lib. 201	Bergmark
Physics	81	1	81	1	Photography	SH-17	Galloway
Psychology	22	3	21	3	Human Growth and Development (Same as Educ. 22) — Educational Psychology	Lib. Forum	R. E. Moore
Psychology	72	3	62	3	Industrial Psych. — Dynamics of Human Behavior	SH-010	Levanway
*Political Sci.	21	3	22	3	American Govt. — State and Local Govt.	Union A	Bowen-Tapp
Religion	61	3	22	3	Comparative Religion — The Prophets	Stu. Activ.	Wroten
Sociology	52	3	*12	3	Marriage and the Family—Modern American Society	M-305	Staff
Spanish	11	3	12	3	Intermediate Spanish	M-113	Bufkin

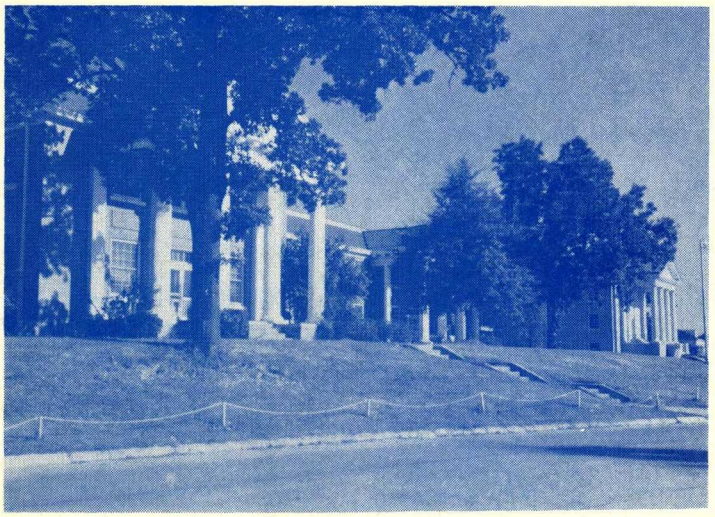
AFTERNOON LABORATORIES WILL BE ARRANGED AT THE FIRST MEETING OF EACH CLASS THAT HAS LABORATORY SESSIONS.

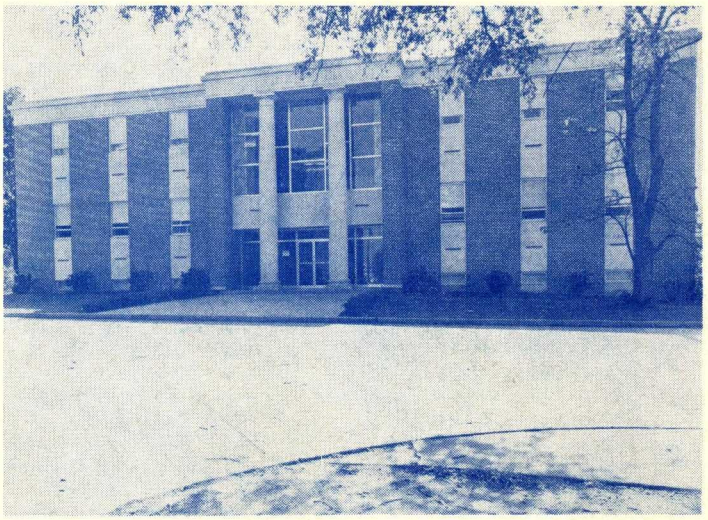
**Organ, Piano, and Voice may be arranged through Mr. Lowell Byler (Voice), Mr. Richard Fairbanks (Voice), Mr. Donald D. Kilmer (Organ and Piano), and Mr. Jonathan Sweat (Piano).

*Courses open to Freshmen.

Intermediate-level courses in foreign languages open to freshmen who have had at least two years of the same language in high school.

Gulf Coast Research Laboratory courses recognized for full credit.





Millsaps College Bulletin

VOLUME 45 FEBRUARY, 1961 NUMBER 6

Published Monthly During The College Year By
MILLSAPS COLLEGE IN JACKSON, MISS.

Entered As Second Class Matter, November 21, 1916 at the Post Office in Jackson, Miss., under the Act of Congress.

Millsaps Room

Millsaps College Bulletin

IN THIS ISSUE:

Man, Philosophy, and the Humanities . . . . . The Image of Man in the Liberal Arts College . . . . . Reflections on the Scientific Method

Volume XLV

Number 7

•

MARCH

1961

Published By

MILLSAPS COLLEGE

JACKSON, MISSISSIPPI

MILLSAPS COLLEGE BULLETIN

Vol. XLV MARCH, 1961 No. 7

Published by Millsaps College, Jackson, Mississippi, monthly during the regular session. Entered as Second Class Matter, November 21, 1917, at the Post Office at Jackson, Mississippi, under the Act of August 24, 1912.

BOARD OF TRUSTEES

Marvin A. Franklin, President
Brunner M. Hunt, Vice President
Nathaniel J. Golding, Secretary
A. Boyd Campbell, Treasurer

W. T. Brown
Roy N Boggan
John Egger
J. T. Humphries
J. W. Leggett, Jr.
John McEachin
R. G. Moore
C. R. Ridgway
W. L. Robinson
W. B. Selah
J. D. Slay
F. B. Smith
Ben M. Stevens, Sr.
Virgil D. Youngblood

R. L. Ezelle, Sr., Emeritus Trustee

ALUMNI ASSOCIATION

W. B. Dribben, President

Ewin D. Gaby, Jr., Vice President
Raymond S. Martin, Vice President
Charlton Roby, Vice President
Roy C. Clark, Past President
O. B. Triplett, Jr., Past President
Noel C. Womack, Jr., Past President

Mrs. Dewey Sanderson, Jr., Secretary
Reynolds S. Cheney, Alumni Fund Chairman
James J. Livesay, Executive Director

DIRECTORS

H. V. Allen, Jr.
C. C. Applewhite
S. E. Ashmore
W. E. Barksdale
Mrs. Ross Barnett
N. U. Boone
Thomas H. Boone
Barry Brindley
J. H. Brooks
Mrs. M. H. Brooks
Mrs. J. W. Campbell
C. C. Clark
Percy L. Clifton
Eugene H. Countiss
Ernestine Crisler
Dudley D. Culley
Mrs. Walter Ely
R. L. Ezelle, Jr.
James S. Ferguson
Garner W. Green
T. Granville Hamby
J. Noel Hinson
Mrs. C. C. Holloman
Mrs. W. F. Johnson
J. Clyde McGee
Sutton Marks
Robert M. Mayo
W. F. Murrah
Mrs. T. H. Naylor, Sr.
T. K. Scott
Robert S. Simpson
Mrs. James K. Smith
Frederick E. Tatum
James D. Tillman
Mrs. J. D. Wofford
James L. Young

INTRODUCTORY NOTE

The first in a series of faculty addresses made during the regular chapel sessions this year are being published in this issue of the Millsaps College Bulletin. A part of the "Images of Man" series, these addresses were among those presented during the divisional "short talks" portion of the program.

The addresses are presented here in the belief that Millsaps College alumni and friends are interested in keeping intellectually alert and in being informed concerning the efforts of the faculty to challenge the students to a lifelong commitment to learning. Other addresses will be published in subsequent issues of this bulletin and in **Major Notes,** the alumni magazine.

It can be hoped that such publications may aid the alumnus to continue his personal, political, philosophical, and social growth.

Your comments concerning the value of this project will be welcomed.

MAN, PHILOSOPHY, THE HUMANITIES, AND THE LIBERAL ARTS

Robert E. Bergmark, Associate Professor of Philosophy

The scene is a room in a hospital. A small child has been lying critically ill upon the hospital bed. The father was out of town when his little son was stricken, but he was finally reached and informed of the desperateness of the situation, and now he rushes into the room. But even as he arrives, his child dies. The physician makes a final check and diagnosis: "The boy is dead." In shock, disbelief, and anguish the father cries out, "What do you mean—dead?" "What do you mean—dead?"

In such a situation a variety of answers is possible. One answer we could call the scientific answer. Such an answer might include mention of the cessation of the activity of the heart, cessation of the activity of the lungs, or the beginning of the gradual process of the breakdown of the structure of the living cells. It might deal with the chemistry of the blood or the activity of a virus or the destruction of crucial organs within the body. "What do you mean—dead?" Death, according to this answer, means physical death.

Now this, surely, is a part of what the father wanted to know. We can be grateful that we have come as far as we have in our scientific understanding of human life, so that when our loved ones become ill or die, we want to know as much as science can tell us about causes and conditions. But our questions reach further than this. The father wants to know this much, surely, but he wants to know more. As this first answer can be called the scientific answer, so a second can be called the religious answer.

This religious answer is not particularly concerned with the **how** of physical death, but addresses itself, rather, to the practical problem of how one is to go on living, courageously and meaningfully, in a world in which this kind of event can take place. Religion is connected with one's personal belief that the values which he believes to be supreme and to which he commits his life are also the values of the very order of things, the values supported by the God whom he worships. But here is this father whose son is dead. Yet how can he be dead? How can a tiny virus wipe out supreme value? And many times the religious answer has included the insistence that it cannot — that though the physical body may die, the person himself lives on. "What do you mean—dead?" Death, according to this answer, also means physical death, but human life is said to include that which is more than physical. The boy himself still lives.

But there is another way to answer this question "What do you mean—dead?" and it can be called the philosophical answer. I do not believe that it would be true to say that this philosophical answer **goes beyond** either the scientific answer or the religious answer. We need more scientific understanding, not less. And

so far as the religious answer is concerned, there is no way to avoid the necessity of working out some practical adjustment to living our kind of life in our kind of world, and the more courageous and meaningful this can be, the better. But the philosophical answer is different from these other answers.

This philosophical answer, like the religious answer, is not primarily concerned with the **how** of physical death, though it would like to be informed on the matter. But neither is it concerned primarily with the religious problem of working out a practical adjustment to such an event. The philosophical enterprise is concerned with understanding, and understanding on a broad scale. When the father cries out, "What do you mean—dead?" he may well be looking for a philosophical answer that will **include** the scientific how, and which can supply a reasonable basis for an intelligent religious adjustment, but which also has value in and of itself as it seeks to understand the meaning of the event we call death in its total relationship to all other aspects of the father's experience throughout his life.

Man has always been a seeker after understanding. He has been a number of other things besides — he has emotions and will as well as cognition, and these, of course, have found expression in his life. But along with these other forms of expression he has been a seeker after understanding.

When this search for understanding was critically organized by intelligence, there came, in the sixth century B. C. in Greece, the birth of Western philosophy, which was at the same time the birth of Western science. This early search for understanding was directed outward, away from man, in an attempt to understand the physical universe in which man found himself. Socrates changed this direction of attention a century later by insisting that man should seek, first of all, to know himself. The unexamined life, he said, is not worth living, and he referred to himself as the gadfly of Athens, whose business it was to see to it than men should be disturbed by questions that would force them to examine themselves, their beliefs, their opinions, their presuppositions, and their prejudices.

Man thought of himself not only as a **seeker** after understanding, however. He supposed over and over again that understanding had been achieved. He sought understanding, and when he arrived at answers, he thought that they had a certainty and finality about them. But with the arrival of David Hume in the 18th century, and his demonstration of the impossibility of arriving at absolute certainty, it looked as though the philosophical enterprise had come to an end. If our search after understanding can never yield more than reasonable probability, then perhaps the search itself should be abandoned.

But then came the contribution of the incomparable Immanuel Kant. Man, for Hume, was simply the recipient of sense perceptions. Man, for Kant, however, is for more than this. He is the recipient of sense perceptions, to be sure, but in no passive nor inert way. Man is the active agent at the center of his experience, giving it order and meaning. Can he arrive at certain knowledge of the nature of himself and the universe in which he lives? No, says Kant, he cannot. He lives by probabilities and by faith. Should he continue, then, the search for understanding, or abandon the search? He cannot keep himself from carrying on the search. The mind of man, says Kant, has a need for philosophy — a need for raising the big questions about the ultimate cause, nature, meaning, and purpose of things — a need which is not satisfied by the skepticism of Hume. Man has a natural predisposition for philosophy. Says Kant, "That the human mind will ever give up philosophical questions and answers is as little to be expected as that we should give up breathing."

The image of man that we have here is one which suggests that man is, by nature, a philosopher. He is driven by the very nature of his experience to ask questions which he cannot answer to his complete satisfaction, but ask them he must. The father who is facing bereavement asks, "What do you mean—dead?" But this is only one illustration, one kind of experience. Another man may be in the hospital to see, for the first time, his newborn child. He asks, not about death, but about the meaning of life and love and purpose and whether or not there is any ultimate significance in it all.

Philosophy consists not so much in a certain body of subject matter as in a certain kind of method of procedure in seeking understanding. It is not so much a set of answers as it a certain type of questions. But in the search and in the questioning itself man finds meaning, significance, and purpose — indeed, he finds himself.

THE IMAGE OF MAN IN THE LIBERAL ARTS COLLEGE

DAVID R. BOWEN

Assistant Professor of Political Science

The image of man which I see from the perspective of a liberal arts college is a creature who must try to understand himself and his environment. This attempt is the business of a liberal arts college. By understanding himself, I mean that the liberal arts student must try to understand the nature and accomplishments of man. He should do this by studying his art, his ideas, his history, his institutions, his behavior, his values. These studies make up what are usually called the humanities and the social sciences. By his environment, I mean the world in which man lives, that is, the substances and creatures, the objects and life which nature has put around him. The study of these things and of the principles necessary to understand them is called the natural sciences.

You note that I refer to the liberal arts as divided into two general areas, the study of man and the study of his environment, instead of the usual three. I feel that this a more rational plan of organization. It would, in fact, suggest one name to apply to the studies which are now called the humanities and the social sciences. The word "humanities" denotes the area to which I refer, that is, studies of and about man, in his character and creations, in his symbols and society. So why should we not think of the liberal arts as divided into two great areas: the humanities, or the study of man, and the sciences, or the study of the world in which he lives?

I know that some of these humanistic studies would involve the scientific method, but I feel that this is less significant than the fact that they are about man in his infinite complexity. And I know that some of the scientific studies would include man, but I believe that they would be concerned about him more as a part of a larger realm of living creatures than as a separate subject of study.

It is not so much the separation of the natural sciences, however, as the integration of the humanities and social sciences which may be questioned. Without elaborating at length, I should like to contend briefly that the materials of study in the humanities and the social sciences are in reality so closely integrated that it is deceiving to think of them as in some distinctive way separate. Many of the basic works, for example, of philosophy, of political science, and of world literature are identical. To understand the history of a period is to understand its economy, its politics, its music and its art, and certainly its philosophy and its creative literature. That same literature can convey psychological and sociological insights which are difficult to express in any other way. But I do not think that you really need to be convinced. You need only to be reminded. You know that all of these approaches to understanding man, and others too, are necessary, and that it is you who must bring them together in your own study and your own thinking. Liberal arts colleges must, for a number of reasons, divide subject matter in this area which I have called humanistic into disciplines — or approaches to understanding man — but it is you who must see them as overlapping and inter-related. It is you who must bring them together to achieve a deeper understanding of the nature and character and meaning of man.

Since we do, however, divide ourselves into disciplines, and I represent one of them, what is the contribution of political science to achieving this goal? I am not especially fond of the name "political science." Most of its work I do not look upon as scientific, or not enough so to justify use of the term. I like the name "politics" or "government" a little better. But whatever you call it, its study is vital to an understanding of man and his aspirations. We have had government of a sort ever since man first said to woman, "I'll bring home the food, and you raise the children." Today, though we have reversed that procedure, we still have family government. But governments today are so complex, so pervasive, so extensive that they rule continents and even the globe. Whether you like it or not, governments determine whether you eat or starve, whether you work or languish, whether you go to schools or remain ignorant, whether you live in peace or die in war. As products of human talent, governments are among man's noblest creations. They rank with his great drama, great painting, great literature, great music; but they bring joy or misery into the lives of more people than any art ever did or ever will. In fact, without government much art would never exist and would never be read nor seen.

But it is not only because the work of government is so necessary that its study is considered part of a liberal education — agriculture and engineering are necessary for our civilization too— but rather that its study teaches people a great deal about themselves. Just as other studies in the liberal arts teach you something about man's nature as reflected in special areas of his experience — his social organization or his religion or his art, for example — so the study of government teaches you something about man's nature as seen in his political values, his political institutions, and his political behavior. Through the study of government you see man's ambitions and his aspirations, his ignorance and his intelligence, his avarice and his altruism as they mount the stage of history for his greatest drama, the drama of politics.

What I am saying, then, about a liberal arts education, or that portion called the social sciences and humanities, is that you attempt to master it because it is the best way to learn a lot about man generally and, in the process, much about yourself personally. There is no limit to this learning. It is a lifetime endeavor. It is impossible to say that the study of a given handful of courses

will provide you with a liberal education. All that a college can hope to do is to introduce you to the concept and scope of the liberal arts and to a selected number of the disciplines of a liberal education, in the hope that this acquaintance will ripen into a lasting bond of affection for knowledge and for beauty.

Those who are privileged to be in a position to work toward a liberal arts education, numbering all of you among them, are an elite. You are an intellectual and an economic elite. That you are an intellectual elite should be obvious, for a high order of intelligence is required to participate successfully in the program of a liberal arts college. That you are an economic elite is true not only because it costs money to be here but because you must postpone both your full entry into the society of wage-earners and your training for this function of earning a living. A liberal arts education may produce as a by-product training for a particular vocation, but this kind of survival training is incidental to the primary purpose of a liberal arts education. There is a word for what you are and what you become because of your liberal education. That word is "leader." It is the purpose of a liberal arts education to produce thinkers, to produce creators, to produce critics, not to produce craftsmen and technicians. It is more leadership of thought, more leadership of creativity, more leadership of criticism which our nation needs, not more technical skill. The trouble with our society today is that we are living in a leadership void. Everybody is following and nobody is leading. The politicians think they are following the people, and the people think they are following the politicians. The preachers think they are following the congregations, and the congregations think they are following the preachers. It is the function of a liberal arts education to prepare you to fill this leadership void. You have not accepted the responsibility which is yours until you see yourselves as the leadership elite of society. If you will do this, then you will have justified your presence in this college today, and you will have guaranteed the kind of society that you want tomorrow.

REFLECTIONS ON THE SCIENTIFIC METHOD

Joseph B. Price, Professor of Chemistry

My distinguished colleagues have set the level of this discussion on a very high plane. It will be my purpose to bring it back to earth, and I assure you that this is being done mainly for my own benefit.

To create a simple hypothetical illustration, imagine someone passing a cemetery on a dark, moonless night. He suddenly observes a white object spread out over some shrubbery. A careful and scientific analysis of this problem will doubtless reveal that the general public will respond in one of three different ways:

1. An astonishingly large number will vacate the vicinity with great dispatch — under the stress of a supernatural fear that gains in intensity as they flee.

2. A smaller group, composed of some of the less desirable members of society, will lack imagination or curiosity enough to investigate the mystery.

3. The individuals in perhaps the smallest group will decide to try the scientific method. They will enter the cemetery and recover what will most likely prove to be a white shirt or sheet which was earlier transported by a gust of wind from a nearby clothes line.

I now bring to your attention a more dignified example of the scientific method at work. Entitled "The Picture of a Perfect Doctor," it was copied from an old French print:

> I imagine a man applying himself to study the first principles of medicine . . . . He learns by precept and example how to distinguish clearly the evident from the obscure, the false from the true . . . . He builds for himself a clear idea of the human frame. To this, he adds a knowledge of the vital fluids; and tests it in the living person and his excretions by the aid of anatomy, chemistry, hydrostatics and even the microscope . . . . Now he opens and explores the bodies of those whose maladies he has noted; now he studies the disease he induces upon animals; again he groups together all the results of disease and of remedies he has tried; again he learns the same thing from the best authors; finally arranging and pondering, he adjusts all things to one another, and, by the means which Theory has shown, he obtains at length a certain grasp of the history and cure in each disease. See then before you the finished picture of the Perfect Doctor.

Another example of the scientific method in action was the work of a mental giant in the 19th century — I am speaking of the many years of careful and painstaking observations all over the world made by Charles Darwin before he gave to his fellow men his **The Origin of Species.** This particular thesis revolutionized the study of biology to an even greater extent than Sir Isaac Newton's discoveries changed the picture of the physics of his day.

Man's use of the scientific method does not go very far back in history. The early Greek philosophers put a great premium on clear, logical thinking so long as they were required to use only their brain cells — but, for the most part, they saw no need for experimentation to prove their theories. Some of the earlier men who began to observe certain discrepancies in the explanations of natural phenomena, supported by the dogma of the church, were hesitant about publishing their findings because they feared the agony and disgrace of excommunication.

Joseph Priestly, 1733-1804, a professional clergyman and an amateur scientist, found the going rough for another reason. As long as he stuck to straight, harmless Bible preaching he had no difficulty. But the poor man developed a social conscience. He began to sympathize with the rebels of the French Revolution, a world-shaking conflict in progress at that time. He let some of this feeling sneak into his sermons. A committee looked into the matter and decided that Priestly was a subversive character and unfit for the pulpit of that parish. Finally a delegation — perhaps an early version of the Ku Klux Klan — burned his home and church and then rode him out of town on a fence rail. Later, he moved to the state of Pennsylvania in this country and continued his scientific investigation. His very important discoveries include the gases: oxygen, hydrogen chloride, sulfur dioxide, and nitrous oxide.

Antoine Laurent Lavoisier, 1743-1794, one of the greatest scientists of all times, has been called the father of modern chemistry. With a series of cleverly executed experiments, he proved the oxygen theory of combustion — and thereby removed from the text books a fantastic, fairy-tale explanation of a natural phenomenon. I refer to the so-called "Phlogistan Theory."

While this man was still in the prime of his scientific creativeness, be became an unlucky victim of the spoils system. Although not an active politician, he did associate with the losing faction in the French Revolution. As a consequence, he lost not only his well-paying government job, but his neck as well. For this travesty of justice, the world of that day and even now was the loser; for, as someone has well said, three hundred years were required to produce a man of Lavoisier's calibre — but the guillotine ended it in three seconds. His executioners justified themselves by exclaiming, "France does not need scholars," What a far cry from the present day! In our government circles the "Harvard accent" has almost become the official dialect.

In the early days there was very little scientific instruction, as such, in the schools of that time. Amateur scientists or gifted men with the patronage of kings and princes made lectures and gave demonstrations. These demonstrations took several forms. In some quarters it became fashionable to have "gas sniffing parties." Nitrous oxide, popularly known as laughing gas, was the favorite refreshment. Old pictures of such events, I suppose, strongly resemble similar scenes that could be made from our modern cocktail parties, where everyone is talking and no one is listening. This is perfectly natural because nitrous oxide, like ethyl alcohol, is a depressant of the central nervous system.

In this modern day we must draw a distinction between "pure scientific research" as contrasted with "applied scientific research." The former is a search for truth for its own sake, whereas the latter is concerned with the problem of improving consumer goods — more commonly known as technology. This is not to imply that pure science and technology are entirely divorced from each other, because many of the good things we enjoy in this life are directly the result of secrets wrested from nature by men who were seeking answers merely to satisfy their own curiosity.

Modern advertising methods have, to a certain extent, taken advantage of the scientific method and at times have had to be curbed by the Pure Food and Drug Administration for using scientific claims that are not justified. You need only to flip the button on your television set to hear exaggerated descriptions of all kinds about detergents, deodorants, acids, laxatives, beer, cigarettes, and all kinds of high octane gasolines. If radio and television waves penetrate the dimension of space now occupied by the scientists whose contributions made these products possible, I am sure that these great spirits are sorely distressed and displeased with all the songs and ditties that permeate the ether waves.

Even to mention the contributions of scores of other great characters would be like reciting the eleventh chapter of St. Paul's letter to the Hebrews. All I can say is that these men, like the patriarchs following in the footsteps of Abraham, were driven by a consuming passion to analyze more deeply, to learn new facts about nature, and to advance basic knowledge. These men were truly great scientists, and they have to a large extent made known the practical facts of the modern world. However, do not get the idea that all of nature's secrets have been nailed down — far from it; for scientific research can be compared to a snow ball rolling down hill — the more discoveries there are, the more problems that come up for solution. The reference to Hebrews is entirely appropriate because the element of faith so eloquently depicted in this great chapter is an attribute of all great scientists.

The members of the Natural Science Division at Millsaps College do not claim for themselves the stature of great scientists — but it is possible that we are now, along with all of our colleagues, helping to develop a few young people who may attain greatness. If we do this, the thirty-ninth verse of the eleventh chapter of Hebrews will be fulfilled in our lives.

Millsaps College Bulletin

IN THIS ISSUE:

The Role Of The Natural Sciences . . . Social Change And Continuity . . . What Do You See In The Barber Shop Mirror?

Volume XLV

Number 9

•

MAY

1961

Published By

MILLSAPS COLLEGE

JACKSON, MISSISSIPPI

MILLSAPS COLLEGE BULLETIN

VOL. XLV MAY, 1961 No. 9

Published by Millsaps College, Jackson, Mississippi, monthly during the regular session. Entered as Second Class Matter, November 21, 1917, at the Post Office at Jackson, Mississippi, under the Act of August 24, 1912.

BOARD OF TRUSTEES

Marvin A. Franklin, President

Brunner M. Hunt, Vice President

Nathaniel J. Golding, Secretary

A. Boyd Campbell, Treasurer

W. T. Brown	John McEachin	W. B. Selah
Roy N. Boggan	R. G. Moore	J. D. Slay
John Egger	C. R. Ridgway	F. B. Smith
J. T. Humphries	W. L. Robinson	Ben M. Stevens, Sr.
J. W. Leggett, Jr.		Virgil D. Youngblood

R. L. Ezelle, Sr., Emeritus Trustee

ALUMNI ASSOCIATION

W. B. Dribben, President

Ewin D. Gaby, Jr., Vice President	Roy C. Clark, Past President
Raymond S. Martin, Vice President	O. B. Triplett, Jr., Past President
Charlton Roby, Vice President	Noel Womack, Jr., Past President

Mrs. Dewey Sanderson, Jr., Secretary

Reynolds S. Cheney, Alumni Fund Chairman

James J. Livesay, Executive Director

DIRECTORS

H. V. Allen, Jr.	Percy L. Clifton	J. Clyde McGee
C. C. Applewhite	Eugene H. Countiss	Sutton Marks
S. E. Ashmore	Ernestine Crisler	Robert M. Mayo
W. E. Barksdale	Dudley D. Culley	W. F. Murrah
Mrs. Ross Barnett	Mrs. Walter Ely	Mrs. T. H. Naylor, Sr.
N. U. Boone	R. L. Ezelle, Jr.	T. K. Scott
Thomas H. Boone	James S. Ferguson	Robert S. Simpson
Barry Brindley	Garner W. Green	Mrs. James K. Smith
J. H. Brooks	T. Granville Hamby	Frederick E. Tatum
Mrs. M. H. Brooks	J. Noel Hinson	James D. Tillman
Mrs. J. W. Campbell	Mrs. C. C. Holloman	Mrs. J. D. Wofford
C. C. Clark	Mrs. W. F. Johnson	James L. Young

INTRODUCTORY NOTE

We are continuing the series of "short talks" made by members of the faculty during the 1960-61 chapel series. Entitled "Images of Man in Contemporary Society," the series featured representatives of the three divisions of the faculty.

The addresses are presented here in the belief that Millsaps College alumni and friends are interested in keeping intellectually alert and in being informed concerning the efforts of the faculty to challenge the students to a lifelong commitment to learning. Other addresses will be published in subsequent issues of this bulletin and in **Major Notes,** the alumni magazine.

It can be hoped that such publications may aid the alumnus to continue his personal, political, philosophical, and social growth.

Your comments concerning the value of this project will be welcomed.

THE ROLE OF THE NATURAL SCIENCES

Richard R. Priddy, Professor of Geology

Millsaps College has been engaged recently in an extensive self study to evaluate its total program—financial standing, physical plant, instruction, and its very purpose for existing. The administrative staff, the faculty, and some of the students have spent many months on this task. It has influenced much of our thinking and is responsible for this year's chapel theme—"The Images of Man in Contemporary Society." Most of the students have heard guest speakers discussing some of its aspects and they have heard several of the faculty presenting interpretations of their image of man and the basic philosophy of their teaching.

What images of man in the Twentieth Century do the Natural Sciences have?

One image is Twentieth Century man living in an age of accelerated scientific achievement. Another is the image of man we see in our instruction. A third image of man is measured by the performance of our graduates.

In the grades, junior high and high school, you mastered certain essentials, essentials which took many generations to prepare for you. Now you are in college, using those same essentials, advancing their use, and adding disciplines as the need has arisen. Your objective is to school yourself for a fuller life in an adult world where nearly three billion people must learn to live in harmony.

As did many other disciplines, the sciences developed slowly. We are astonished at the accuracy of certain Egyptian, Greek, and Roman philosophers who measured the circumference of Earth, its weight, and its distance from Sun and Moon. We admire, especially, the 2200 year old observation that matter consists of minute particles in orbital motion, which statement is the essence of our modern atomic-molecular theory. Yet, with the exception of the Greco-Sicilian Archimedes, we regret that few ancient philosophers put their mental achievements to practical use.

The same reticence in application in the Greco-Roman world continued into the Middle Ages. But, fortunately, natural philosophy was revived in the Arabic World and provided the foundation for some actual scientific experimentation in mathematics, architecture, and medicine. Transferred through war and trade to the western Mediterranean, these achievements became a part of the Renaissance which stimulated discovery and exploration.

But the scientific method was little used until the Eighteenth Century. There were mental giants in those days! There were no true scientists, but there were practical philosophers who thought broadly and who made science and philosophy a sideline to their vocations. Some mental giants were our own Benjamin Franklin and Thomas Jefferson. In England there were Priestley and Davy. In Scotland there was Rutherford. In France there were Buffon and Lavoiser. In Holland there were Loowenhoeck and Janssen. In Sweden there were Linneaus and Scheele.

Then in our own century there developed the full-time scientist who uses the scientific method, whether it be in technology to seek a valuable product, whether it be in experimentation to study processes and only secondarily to determine its benefits, or to teach where the teacher learns by teaching.

This is your scientific heritage. This is the image of Twentieth Century man living in an age of accelerated scientific achievement which has been slowly and painfully prepared for you.

The second image of scientific Twentieth Century man we see in our instruction.

In one group of science majors are the pre-professional students—those who go on to medical school, dental school, or into engineering. True, we are not finishing these students but we are providing essential background training as a basis for further study which is so vital in those highly technical fields.

In another group of science majors we are graduating some students who are immediately to practice their skills as teachers, chemists, and laboratory technicians. They may have ended their formal education but it is hoped that we are providing a sound background for further, self education so that their life work may be stimulated by what they are doing and inspired by what they might do.

Probably our greatest source of joy, however, lies in the number of students we train for graduate schools. Their performance provides another image of man in the Twentieth Century. This is the group in which we hold greatest interest, for in these individuals lies the promise of **some** of tomorrow's leaders in science. Only a teacher knows the pride in a student who has advanced in thinking farther than his teacher.

Last, but certainly not least, there is science for the non-science major. Recognizing that the non-science student does not have time for two semesters of biology, chemistry, physics, geology, and advanced mathematics, the Millsaps science instructor strives to give two semesters of concentrated subject matter rather than watered-down science surveys.

Aside from producing successful graduates, the faculty of the Science Division believes that it has something to offer all students seeking education. It offers an image of man, a philosophy of life, by the very pursuits that we follow in the classroom and the laboratory. We are dedicated to one primary purpose, whether this be applied to biology, chemistry, geology, physics, or mathematics. We are teaching the **scientific method of inquiry**. This is the philosophy of our method of instruction.

SOCIAL CHANGE AND CONTINUITY

Frederick L. Whitam, Assistant Professor of Sociology

Sociology does not address itself to ultimate questions about ultimate purpose. It does not help man in his search for questions about death and life. Sociology deals with the here and now, the commonplace, the ephemeral, today, this time, this place. Sociology is notoriously secular, regarding no ground too holy for its curious and heavy foot. Religion, sex, divorce—the Polish peasant, the American soldier—the less savory aspects of the medical, business, and academic professions—have not escaped the bony finger of the sociologist.

Yet it is this apparent blasphemy of sociology which makes it so important for the liberal arts student—a paradox in a world that loves paradoxes. The superficial sociological image of man is that of "man trapped by his society," like the desperate band of people trapped in a desolate village in Tennessee Williams' **Camino Real.** But a more hopeful image offered by sociology is that of man actively engaged with his society and capable of re-creating it. Sociology calls upon man to leave off for a while contemplation of the wonder of the universe and the wonder of the gods.

Charles Beard, in his introduction to Bury's distinguished work **The Idea of Progress,** writes:

> After spending many years in the study of the voluminous records of mankind he came to the conclusion that there were two great discoveries in the history of thought which were significant for the task he had assumed. The first was made by a Greek poet. "There is no passage, perhaps, in the works of the Greek tragedians so instructive for the historical student as that song in the Antigone of Sophocles, in which we seem to surprise the first amazed meditation of man when it is borne in upon him by a sudden startling illumination, how strange it is that he should be what he is and should have wrought all that he has wrought—should have wrought out, among other things, the city state. He suddenly, as it were, waked up to realize that he himself was the wonder of the world." Thus in the fifth century B. C. man had become conscious of himself as a wonder-working force in the world—a conqueror of the beasts of the field, the fowl of the air, the wind of the sea, and the patient earth.
>
> A second great stage in human evolution was reached when mankind became conscious of what could yet be done, when the idea of progress broke in upon the belief in the vicious circle of contentment with status.

The primitive man, or the uneducated man in modern society, does not usually have this sense of awe—the exciting thought that "man is the wonder of the world"—which provoked the Haiku poet, Soin, to exclaim:

Life, A butterfly
On a Swaying Grass
That's all,
But so exquisite

It is this sense of wonder of man, of the sacredness of the commonplace, of the holiness of the **now,** which prompted James Agee to write so movingly of three tenant farmer families in Alabama in the 1930's in his work, **Let Us Now Praise Famous Men,** which has been called "one of the extraordinary, one of the great books of our time." Agee writes:

> In every child who is born, under no matter what circumstances and of no matter what parents, the potentiality of the human race is born again; and in him, too, once more, and in each of us, our terrific responsibility toward human life; toward the utmost idea of goodness, of the horror of error, and of God.

It is this wonder, too, which is shared by the more ponderous, but equally sensitive, genius of sociologists like Max Weber and Georg Simmel.

It is the task of a liberal education to enable man to achieve this sense of wonder about himself, to explore freely and guiltlessly his own world and himself, to engage himself completely in the terrible-beautiful world in which he finds himself and from which only with difficulty extricates himself.

The second point that Beard makes concerns the idea of progress, and this, I think, is the second contribution of sociology to man's image of himself. Man is not passive in his society, but rather is actively engaged in it—destroying, building, tearing, binding. Sociology does not soothe, reassure, or console. It rarely solves social problems—although sociology presently offers to society more solutions to its social problems than society is willing to buy. It never relieves personal anxieties. It may intensify them. But it is only out of anxieties and dissatisfaction that creative change can come. David Riesman, in his collection of thoughtful essays entitled **Individualism Reconsidered,** says: "A revival of utopian thinking seems to me one of the important intellectual tasks of today. Since we live in a time of disenchantment, such thinking, where it is rational in aim and method and not mere escapism, is not easy; it is easier to concentrate on programs for choosing among lesser evils, even to the point where these evils can scarcely be distinguished, one from the other.

For there is always a market for lesser-evil thinking which poses immediate alternatives; the need for thinking which confronts us with great hopes is not so evident."

It is a central task of sociology to confront man with an image of his society as it might be. Indeed, this is a central task of liberal education. A fundamental distinction between the liberal education and a technical education is that liberal education is not committed to any particular occupational category or institution. Its commitment transcends such barriers and makes the student aware of the common good, helping him re-discover a sense of unity with his society, which was lost somewhere in the growth of the complex society. It is fair to say that any liberal arts college which does not create anxieties, which does not occasionally pit son against father, which does not sometime bring criticism upon itself from the society at large, might as well be turned into a trade school.

And, obversely, the conservative student on the liberal arts campus is something of an anomaly, for he has, by accepting completely the hoary heritage of his grandfather, surrendered the student's heritage—to inquire freely, to question utterly, and to explore relentlessly all possible social alternatives. He has become, long before his time, intellectually middle aged.

These two ideas of Bury's, then, are terribly important: the wonder of man and the sacredness of the commonplace; and the vision of what can be—these are the tasks, not of sociology, but which lie at the heart of liberal education.

WHAT DO YOU SEE IN THE BARBER SHOP MIRROR?

Lee H. Reiff, Assistant Professor of Religion

What does it mean to be a human being? What is the picture we have of ourselves? Even if we have never consciously asked this question of ourselves, we nevertheless have such a picture. Whether we like it or not, we are like the Dutch maid on the old—not the new—but the old Old Dutch Cleanser can. Remember her? She carried a can of Old Dutch Cleanser with her own picture on it—a picture of herself carrying a can with a picture of herself carrying a can—and so on to infinity. Willy-nilly, we carry a picture of ourselves—carrying a picture of ourselves—and so on. Or, to change the figure, we are all like the man sitting in the barber shop lined all around with mirrors, contemplating himself as he looks at himself, seeing many images of himself somehow all the same, further and further back, until so much light is lost that the reflections are lost in darkness.

We are, in sober fact, all like this—for this is part of what it means to be human—this ability to be both subject and object of our own consciousness at every moment. The question is **what** picture we see—or silently assume that we see. Most of us seldom, if ever, stop to pose this question of what we see—life seems to be a whole lot simpler if we don't bother to do so. But even if we resolutely close our eyes and never entertain such a question—the fact remains that **we do see something;** we **are** carrying that can of cleanser with our own picture on it. The fact remains that we build our lives——our actions, our thinking, our goals—on a picture of what we are and of what other people are.

Now, what picture is in effective control of our lives today? What image of ourselves and others as human beings has the greatest influence on us as we study and work and set goals for ourselves? I think the answer is clear. It is the picture we derive from what we call science. Now don't except yourself from this: The screen you see this picture on may be connected to an antenna which is not properly aligned, or the fine tuning may not be properly adjusted—but this signal is in the air, and your screen is picking it up. You are caught in the scientific point of view—and I would suggest that the person here who is **most** certain that **he** is the exception is probably the one who is most tangled in this net.

What picture of man does our so-called scientific age in-

sinuate upon us? To answer this question, we need to take a brief look at the goal of science and at its method. The goal or aim of science is to be exact and objective and ultimately to arrive at a point where its conclusions can be expressed in the language of mathematics. The method of science is the method of analysis or division into parts, of precise description, of classification, and then of generalization—the formulation of general principles on the basis of which we may know what to expect in a given set of circumstances.

The successes achieved through the use of this goal and method are spectacular. We must give unqualified assent to what science has done for us—there can be no doubt that because of it we know immeasurably more about the universe than ever before and have in our hands the tools by which many of the burdens of life may be lifted.

But the outlook on life which this success has fostered in all of us has poisoned the wells of our understanding. Science of necessity concerns itself with what is general and uniform—and we are so caught up in this that we are suspicious of what is personal and particular and unique. If by some kind of intuitive reservation we try to hold on to a picture of ourselves as unique persons, we are seldom willing to let other people be persons: We analyze our fellows, we classify them, put them in handy little pigeon-holes. Science is above all rational—so we feel it necessary above all to be reasonable and will insist most vehemently that we are when we are not. Science is exact and precise—and most of us are at sea when we meet the "merely symbolic," as we call it. Science has divided knowledge so that its parts might be mastered—so most of us just can't see what all the different things we study have to do with each other. Science concerns itself with "facts," so we are scared to death to face the question of meaning. The truth science shows us seems so clear and certain that when we encounter truth that cannot be verified by science it somehow seems less true to us, if true at all.

Some of these things are not new—men have always pigeonholed other men and have always been prone to think more highly of the truth they can see and manipulate than of the truth that they cannot pin down. The image of ourselves and others science tends to suggest to us has often merely reinforced what was already there and provided a rationale for it. But it has also produced some new features on this picture—our puzzlement with the "merely symbolic," for example—our almost complete literal-mindedness.

What I have just said has of necessity been rather general. Let me give a couple of examples of what I mean by saying that what we call the scientific outlook has come close to pre-empting our whole picture of ourselves. In almost every college and university, as in our own, a group of departments form what we call the social science division. Such departments seek to understand men and society, in all their aspects, by the use of scientific method: precise description, analysis, classification, generalization from observable facts. Let me make it clear that I have no quarrel with the effort to do this—it has taught us a great deal. But the use of the term "social **science**" and the constant concentration on the scientific method in these fields somehow conveys to us an impression that if we push these methods far enough we will eventually be as successful here as natural science has been in its field. Natural science is increasingly able to manipulate things and to predict what the world of things will do. Our goal in the social sciences is almost inevitably seen in the same way—the successful manipulation of men and society, the accurate prediction of what men will do.

But the example I want to point to which distresses me most has to do with my own particular field. There are large numbers of us who feel that if the Bible isn't scientifically true, it therefore isn't really true at all. And if we aren't that explicit about it we still have a sort of nagging feeling of uneasiness and embarrassment at the fact that somehow we can't have the same kind of certainty about the Bible—or about our faith in general—that we can have about scientific truth. But I submit to you that it is the man who most firmly asserts that he holds the Bible to be absolutely infallible no matter what science tells him—for example, about the age of the world—it is this man who has most thoroughly surrendered to science—all the more thoroughly because he doesn't know it. He has surrendered because he has accepted the assumption that what is not "scientific" is simply not true. He wants to give his faith the same kind of certainty that a lab experiment provides. He has let science call the turn on his conception of truth—and his image of himself is thereby drastically altered.

This is the situation we are all in—we have let science put a mask on our picture of man. But life has a way of lifting that mask and letting us see a true image. Somehow we know that we are persons, not instances of general laws. Somehow we see

that human life and action cannot be founded solely on what is rational. Somehow we sense our wholeness, even as science divides us up to analyze us. Hard as we try to stiff-arm it away, the question of meaning pursues us. Somehow we wish we could understand the wholeness and mystery of life which the symbolic arts of painting and music and literature struggle to express.

And that is the business of the humanities—to keep reminding us of what we know but are afraid to admit because it isn't scientific enough. That is the business of liberal education, to remind us that there is a world of meaning—even on our strictly human plane—that science cannot probe, that cannot be broken into parts and analyzed and explained. It is our task, much as we would like to avoid it, to insist that the really hard questions be asked—questions which can only be answered at all by some act of commitment, some willingness to admit that behind life there is a mystery **we** cannot fathom. It is the special task of the humanities, but also the task of the liberal arts college as a whole, to pull away the mask which we have placed on our image of man because of our love-affair with science.

Religion has a special role in all this. We don't play that role very well because we have succumbed to the scientific tendency to fragment man and put knowledge in tight compartments. But we have a role we ought to fill—to affirm that back there in the region to which the sight of the man in the barber chair cannot penetrate—back there in the region of the final mystery—the mystery which in faith we call God, which in faith we hold to be the key to the reflections of ourselves that we **can** see—back there there is light and not darkness—light which is **seeking us** out, light which illumines, for eyes of faith, the meaning and purpose of our human existence and the meaning and purpose of the science which is part of that existence. Our role is somehow to restore a wholeness to an image of ourselves, a wholeness we have lost. This is our task—and your task, too.